

nourishes the posterior segment of the internal capsule, the walls of the ventricles and their ganglia.

Kolisko's injection-experiments, not yet published, show that the nutritive region of the arteria chorioidea includes: the optic tract, internal capsule, wall of the descending horn and the cornu ammonis (smell centre, Zuckerkandl). Thus a nutritive disturbance of this vessel explains cerebral hemianæsthesia with unilateral blindness, anosmia and motor paralysis. The fact that the face and tongue are not affected in the functional disorders is explained by the position of their nerve tracts in the most anterior part of the posterior portion of the internal capsule, more on the border between the posterior and anterior limbs.

The anterior portion of the internal capsule receives its nutritive branches from vessels coming through the lamina perforata.

The arteria chorioidea seems to have a predilection for functional disturbances, because it is the smallest branch of the basal vessels, and because it has no anastomoses with other basal arteries; hence, a vicarious distention or collateral overflow is not possible in its area when, for instance, there is a general spastic contraction of the circle of Willis. And in functional paralyses we are mostly concerned with spastic, vasomotor disturbances, such as irritation of the subcortical emotional centres and transfer of the irritation to the circle of Willis through the sympathetic.

EXPERIMENTAL OBSERVATIONS OF THE RELATION OF THE MOTOR GANGLION CELLS OF THE CORD TO THE PERIPHERAL NERVES.

Dr. Alb. von Sass, of Dorsat, contributes a paper upon the above subject to *Virchow's Arch.*, vol. cxvi., part 2.

Prévost and David found in atrophy of the muscles of the hand atrophy of the roots of the seventh and eighth cervical nerves with atrophy of the anterior horn (especially affecting the cells of the lateral group) two to three cm. in length.

Sahli in a similar case found atrophy of the anterior horn at the level of the fourth to the seventh cervical nerves, particularly in the postero-external region.

Kahler and Pick examined the cord of a person whose arm had been amputated six years before, finding partial atrophy of the ganglion cells of the external group at the level of the fifth and sixth cervical nerves; while Hayem and Gilbert in a similar case found the motor cells in the whole cervical region affected, but more especially at the level of the seventh and eighth cervical and first dorsal segment.

Kahler and Pick located the centre for the calf muscles in the fourth and fifth lumbar segments; for the thigh, in the second to the sixth, but chiefly in the fifth and sixth (the middle group of cells).

Schultze placed the motor nuclei of the sciatic nerve in the lower portion of the lumbar enlargement, but the centres for the tibialis anticus and for the crural and obturator nerves higher.

Gudden, Mayser, Forel and others have induced atrophy of the nerve nuclei, experimentally, by section or removal of portions of peripheral nerves; and von Sass, making use of this method, has made the following localizations in the cord:

Median nerve—eighth and parts of the sixth and seventh cervical segments.

Radial nerve—Parts of the fifth and eighth and the whole seventh cervical segments.

Ulnar nerve—Upper half of the first dorsal, and the lowest and uppermost third of the eighth cervical segment.

Sciatic nerve—Lower half of the lumbar enlargement, and most strongly towards its middle.

The origin of the radial nerve was highest, generally speaking; that of the median, next; and of the ulnar, next; so that the muscles occupying the highest levels on the extremities seem to be represented in the highest levels of the cord.

HEMIATROPHY OF THE BRAIN.

At a meeting of the Budapest Medical Society, May 11, 1889 (Centralb. f. Nervenheilk., June 15, 1889), Jacob Salgó presented a brain showing hemiatrophy. A young man of nineteen years, idiotic, had suffered from earliest childhood from epilepsy and left hemiplegia. The right hemisphere was hardly half as large as the left, and the convolutions, particularly in the occipital region, were as thin as paper. The change was least marked in the central gyri. The right basal ganglia were atrophied. The atrophy ceased at the pons; spinal cord normal.

Jendrassik remarked upon the case that the brain showed the lesion of a cortical hemiplegia. According to his observations upon such atrophic convolutions, the connective-tissue is increased and the nerve-fibres disappear. This pathological condition usually follows an acute infectious disease.